Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of)	
Additional Spectrum for Unlicensed)	ET Docket No. 02-380
Devices Below 900 MHz and in the)	
3 GHz Band)	

COMMENTS OF ERICSSON INC

Ericsson Inc ("Ericsson") hereby submits comments in response to the Notice of Inquiry, released December 20, 2002, by the Federal Communications Commission ("Commission"), regarding the possibility of permitting unlicensed devices to operate in: 1) TV broadcast spectrum at locations and times when spectrum is not being used; and 2) 3650 – 3700 MHz at power levels significantly higher than the maximum permitted for unlicensed devices in other frequency bands. Ericsson generally supports the flexible use of spectrum because flexibility allows under-utilized bands to be used more efficiently and fosters innovation. Ericsson urges the Commission to consider the question of added flexibility for particular frequencies, such as those identified in the present Notice of Inquiry, with an eye to an overall spectrum management strategy that is clear, ensures harmonization of spectrum usage, facilitates roaming, reduces the complexity of equipment, and maximizes the potential for economies of scale. In this context, the spectrum identified in the Notice of Inquiry is unsuitable for unlicensed use.

A. TV Broadcast Bands

Over the next few years, Digital Broadcasting systems operating in the band 470 - 862 MHz are expected to increase as a result of the transition process of migrating from analogue to digital TV. At the same time, the demand for mobile data communication is likely to be steadily increasing. Today, we see all kinds of interactive multimedia services carried over digital

mobile communication networks. We also see digital broadcast services like television, radio channels and data broadcasting carried over digital broadcast networks. As such the borderline between the two worlds continues to be blurred as the demand for interactive multimedia services for large mobile user groups increases, both on the content provider side as well as on the end-user side. To address these synergies, the Commission should consider expanding licensed mobile systems in the TV Broadcasting spectrum rather than allocating it for unlicensed use.

Flexible licensed use of 470 - 862 MHz band, will encourage the two industry sectors to collaborate on the most efficient use of this spectrum to satisfy consumers. This type of flexible use recognizes and addresses the convergence trends witnessed in the industry. The Commission should also ensure that such expansion is globally harmonized, to the fullest extent feasible.

Further, Ericsson recommends that the Commission allocate the TV Broadcast bands for licensed mobile wide area coverage technologies below 900 MHz. The proximity of these bands to existing mobile services and the propagation characteristics of this spectrum are favorable for mobile systems. For these reasons, this allocation is preferable to other options.

B. Consideration of Spectrum/Equipment Characteristics

The appropriate allocation of spectrum for both licensed and unlicensed services is the key to limiting harmful interference and to ensuring the development of commercially viable uses of spectrum. Some spectrum is more suitable for particular services because of its fundamental propagation characteristics. The Commission must take into consideration the particular capabilities, applications, spectrum use properties, and the spectrum requirements of devices when making its allocation decisions.

For example, Ericsson has developed and manufactures two radio-technologies that operate in unlicensed bands; Bluetooth for Private Area Networks (PAN) and W-LAN (802.11) solutions for public operators. Ericsson supports the further identification of unlicensed spectrum. However, before a decision can be made on which bands should be considered for unlicensed use, the spectrum must be examined to determine whether unlicensed use represents the most efficient use.

For instance, in the case of the 5GHz band, the Commission has already identified a portion of this spectrum for unlicensed use consistent with the international community. Additional portions of the band are also being considered at the WRC2003 for global allocation. Ericsson supports the Commission's efforts to optimize the opportunity for global or, at the least, regional harmonization of spectrum.

Globally allocated bands of this nature are an essential step for continued development and deployment of a wide variety of products and applications, including W-LAN. An important element of effectively achieving the benefits of roaming, reduced complexity of equipment, affordability of devices, and economies of scale is the controlled deployment of unlicensed services. Therefore, additional spectrum for unlicensed service as proposed in this Notice of Inquiry, without the same desirable market benefits that are experienced in the 5GHz band, will likely undermine valuable resources in the development of a market in the 5GHz band.

Moreover, Ericsson believes that it is better to allocate the lower frequency bands for wide area licensed applications and higher bands for unlicensed applications. Many unlicensed products and applications are important to consumers and businesses alike because they contribute to increased efficiency and productivity. Devices and applications operating in licensed spectrum are also important to consumers and business for similar reasons.

Accordingly, the Commission should balance its efforts to make both licensed and unlicensed spectrum available to ensure that the public has access to a full range of wireless products and services. In this way, licensed and unlicensed systems can complement one another.

C. Appropriate Regulations

It is also imperative that the Commission promulgate rules for the unlicensed use of spectrum that are clear, stable, and well defined. Ericsson urges the Commission to establish a spectrum management policy that stimulates a cooperative approach to resolving use and interference issues. Specifically, Ericsson recommends that the Commission enable spectrum users, perhaps through Industry fora, to identify a technical framework for licensed and unlicensed use.

Important elements of a technical framework include specific spectrum use etiquette, agreed conditions, contract, and soft regulations that would guide both licensed and unlicensed spectrum users. This approach would enable the actual spectrum users to craft technical use arrangements that meet their needs, making compliance more readily achievable. In addition, in some instances, actual spectrum users may agree to more permissive terms than what are generally considered suitable because such terms may maximize the utility and efficiency of spectrum use to the mutual benefit of licensed and unlicensed users.

D. 3650 - 3700 MHz

Ericsson applauds the Commission's efforts to investigate opportunities to maximize spectrum use. Sometimes flexibility is not appropriate because technology or services are not yet ripe for deployment in certain bands. Presently, unlicensed operation in the 3.5 GHz band falls under this category and could lead to market fragmentation and thereby detract from the Commission's overarching goal to promote competition, a diversity of affordable devices and

applications, and spectrum efficiency. As noted above, Ericsson recommends that the

Commission focus its attention and efforts in the 5 GHz bands, rather than the 3.5 GHz band, in

order to stimulate the unlicensed industry to ensure that harmonization, innovative goods and

services, and economies of scale are achieved.

Ε. **Conclusion**

Ericsson commends the Commission for pursuing initiatives aimed at aligning U.S.

spectrum use with that of the rest of the world. A lack of global harmonization creates particular

problems for short-range radiocommunication devices both in terms of inefficient or fragmented

use of spectrum and in an inability to capitalize on the benefits derived from economies of scale.

On the other hand, harmonization promotes innovation in goods and services. Similarly an

appropriate balance between licensed and unlicensed use of spectrum, and clear regulations that

consider the propagation characteristics of spectrum, will lead to commercially viable markets

for devices and applications that utilize both licensed and unlicensed spectrum.

DATED this 17th day of April, 2003.

Mark Racek

Director, Spectrum Policy

Ericsson Inc

Office of Public Affairs

1634 I Street, N.W., Suite 600

Washington, D.C. 20006-4083

Telephone: (202) 783-2200

Facsimile: (202) 783-2206

Telephone: (202) 659-5800

Suite 1200

Allison M. Ellis

Elisabeth H. Ross

Washington, D.C. 20036

Birch, Horton, Bittner & Cherot 1155 Connecticut Avenue, N.W.

Facsimile: (202) 659-1027

G:\101258\3\AME0792.DOC

5